

Translation

PATENT COOPERATION TREATY

PCT/FR2003/003455



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference R7912WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/003455	International filing date (day/month/year) 21 novembre 2003 (21.11.2003)	Priority date (day/month/year) 22 novembre 2002 (22.11.2002)
International Patent Classification (IPC) or national classification and IPC C02F 1/44, 1/28, 3/12		
Applicant OTV SA		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 19 mai 2004 (19.05.2004)	Date of completion of this report 29 October 2004 (29.10.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/003455

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed
- ☒ the description:
pages _____ 1-10 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____ 1-28 _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the drawings:
pages _____ 1/1 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/FR 03/03455

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-28	YES
	Claims	none	NO
Inventive step (IS)	Claims	1-28	YES
	Claims	none	NO
Industrial applicability (IA)	Claims	1-28	YES
	Claims	none	NO

2. Citations and explanations

1. Reference is made to the following document:

D1: US5364534

2.1 D1, which is considered to be the prior art closest to the subject matter of claims 1 and 17, discloses a water treatment method (D1, claim 1) including at least one step wherein said water is put into contact with at least one inorganic powdered reagent, preferably powdered active carbon (D1, column 2, lines 11 to 13), and at least one membrane separation step (D1, column 2, lines 42 to 47; figure 1). The purge streams from said membrane separation are treated by gravity separation upstream of the point at which the powdered reagent is fed in (D1, column 2, lines 48 to 59, figure 1). These purge streams are thus separated into at least two fractions: a fraction including the majority of the powdered reagent in a small flow of water (purge stream from the gravity separator according to figure 1) and a second fraction including the majority of the organic matter not absorbed on the powdered reagent (water clarified by the gravity separator, see figure 1). The subject matter of claims 1 and 17 therefore differs from said known

document in that the first fraction is fed back into said water upstream of the step wherein the water is put into contact with the reagent. The subject matter of claims 1 and 17 is therefore novel (PCT Article 33(2)).

3. The problem that the present invention is intended to solve can be considered to be that of improving the known method. The solution to this problem, as proposed in claims 1 and 17 of the present application, is considered to involve an inventive step (PCT Article 33(3)) for the following reasons:

(i) In D1, the reagent is removed by the purge flow from the gravity separator (D1, column 2, lines 60 to 68, figure 1), therefore a person skilled in the art would not feed this mixture into the contact vat (D1, figure 1, reference 3), since under such circumstances the separator would be useless.

(ii) D1 does not suggest providing a separator in the recirculation loop (5).

4. Claims 2 to 16 and 18 to 28 are dependent on claims 1 and 17 and thus also comply, as such, with the PCT requirements of novelty and inventive step.